

Grade 1	Lesson: 4-8 Thinking Addition to 8 to Subtract	Reference to English
Math Standard(s): 1.OA.4, 1.OA.6, & 1.OA.8		Domain: Operations and Algebraic Thinking
Content Objective(s):		Language Objective(s):
Students will understand how addition facts to 8 related to subtraction facts to 8. <i>I can use addition facts to 8 to help find subtraction facts to 8.</i>		Students will say numbers 1-8 while using addition facts to find the related subtraction facts. <i>I can say the numbers 1-8 while using addition facts to help find subtraction facts.</i>
Essential Understanding: Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction fact has a related addition fact.		Academic Vocabulary: Listen: 1, 2, 3, 4, 5, 6, 7, 8, addition, plus, equals, sum, subtraction, minus, difference Read: 1, 2, 3, 4, 5, 6, 7, 8, addition, subtraction Write: Speak: 1, 2, 3, 4, 5, 6, 7, 8, addition, plus, equals, subtraction, minus
Materials: <ul style="list-style-type: none"> • Number Cards 0-11 (1 set per child) • Counters (20 per pair) • Cup (1 per pair) • Whiteboards and dry erase markers • Guided Practice page 146-147 • Problem Solving page 148 		Language and Word Wall: 1, 2, 3, 4, 5, 6, 7, 8, addition, plus, equals, sum, subtraction, minus, difference
Lesson: Thinking Addition to 8 to Subtract		Instructional Time: 35 minutes
<p>Opening: (2 minutes) T: "You have learned how to use doubles addition facts to solve subtraction problems. Today you will learn how to use addition facts to solve subtraction facts." • Invite 4 children to come to the front of the class. T: "We have 1,2,3,4 students, I need 7 children in all. How many more do I need? Tell your neighbor." S: will say "3". T: "How did you figure this out?" S: will say "because they used addition" or "addition." T: "So, you used addition, like this, $4 + 3 = 7$?" (write the addition fact on the board) T: "If you subtracted 4 from 7, would that help you find how many more students I needed?" • Write $7 - 4 = 3$ and circle the 3 on the board. S: will say "yes". T: "If you know one of these facts you also know the other." (point at both number sentences)</p> <p>Introduction to New Material (Direct Instruction): (6 minutes) • Distribute the counters, whiteboards, and dry erase markers to the students. • Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle. • Write the number 6 on the whiteboard. T: "How can you use an addition fact to find the answer to $6 - 4 = \underline{\quad}$?" • Invite students to share their answers. T: "I want you to put 4 counters in front of you." • The teacher will draw for counters (circles) in the box on the left. T: "What is the subtraction sentence? Tell your neighbor." S: will say "$6 - 4 = \underline{\quad}$." T: "You know the whole is 6 and one of the parts is 4. How many more counters do you need to make 6?" S: will say "2". • The teacher will write the number sentence $6 - 4 = 2$ on the whiteboard. T: "So 2 is the missing part." • The teacher will draw 2 circles (counters) in the box on the right. • Have the students put 2 counters to the right of their 4 counters. T: "What is the addition fact can you show with these counters? Tell your neighbor." S: will say "$4 + 2 = 6$". T: "What is the addition fact?" S: will say together, "$4 + 2 = 6$."</p>		

T: "Good Job!!"

- The teacher will write the number sentence $4 + 2 = 6$ on the whiteboard.

Guided Practice: (15 minutes)

Use the modeling cycle:

Teacher Does:

- Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.

T: "For this activity I am going to use the number cards, counters, and cup. I am going to take and make a pile with all of the number cards 5-8. I am going to take the cards with the numbers 0-4 and 9-11 and put them back in the baggie. I will not be using these number cards for this activity. Then I am going to place the cards with the numbers 5-8 face down in a pile. I am going to use the number cards to determine the number of counters I will place on my board."

- Take all of the number 0-4 and 9-11 cards out of the deck of number cards. Then shuffle the number cards and place them face down in a pile.

T: "I am going to flip over a number card. The number on this card tells me how many counter I will place in my cup. I picked a _____. So, I will put _____ counters in my cup."

- Teacher flips over the top card in the pile and puts the correct number of counters on a cup.

T: "Now I am going to reach in and take some of the counters out of the cup."

- The teacher grabs some counters and removes them from the cup.

T: "I am going to place the counters I removed from the cup in the box on the left."

- The teacher puts the counters in the box on the left.

T: "What is the subtraction sentence for this?"

S: will say "(number on the card) - (the number of counters removed from the cup) = (number of counters in the cup)."

- The teacher will write the number sentence $___ - ___ = ___$ on the whiteboard.

T: "You know the whole is _____ and one of the parts is _____. How many more counters do you need to make _____?"

S: will say "_____".

T: "So _____ is the missing part."

- The teacher will draw _____ circles (counters) in the box on the right.
- Have the students put _____ counters to the right of their _____ counters.

T: "What is the addition fact can you show with these counters?"

S: will say " $___ + ___ = ___$ ".

- The teacher will write the number sentence $___ + ___ = ___$ on the whiteboard.

Students Do with Teacher:

- Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.

T: "I need a student to help me."

- Pick a student to come up and demonstrate the activity with the teacher.

T: "For this activity we are going to use the number cards, counters, and cup. We are going to use the 5-8 number cards here in this pile. I have already taken the cards with the numbers 0-4 and 9-11 and put them back in the baggie. We will not be using these number cards for this activity."

- Make sure the 5-8 number cards are in a pile.

T: "First, I am going to flip over a number card. The number on this card tells me how many counter I will place in my cup. I picked a _____. So, I will put _____ counters in my cup."

- Teacher flips over the top card in the pile and puts the correct number of counters on a cup.

T: "Now want you to reach in and take some of the counters out of the cup."

- The student volunteer grabs some counters and removes them from the cup.

T: "I want you to place the counters you removed from the cup in the box on the left."

- The student volunteer puts the counters in the box on the left.

T: "I also want you to tell me the subtraction sentence for this?"

S: will say "(number on the card) - (the number of counters removed from the cup) = (number of counters in the cup)."

T: "Please write this subtraction number sentence on the whiteboard."

- The student volunteer will write the number sentence $___ - ___ = ___$ on the whiteboard.

T: "We know the whole is _____ and one of the parts is _____. How many more counters do we need to make _____?"

S: will say "_____".

T: "So _____ is the missing part."

- Count the number of counters in the cup and see if the answer is correct.

T: "The addition sentence for this is $___ + ___ = ___$."

•The teacher will write the number sentence $\underline{\quad} + \underline{\quad} = \underline{\quad}$ on the whiteboard.

T: "Great job! Thanks for helping me."

2 Students Do:

•The teacher will write the following on the whiteboard: $\underline{\quad} - \underline{\quad} = \underline{\quad}$ and $\underline{\quad} + \underline{\quad} = \underline{\quad}$.

•Have the students draw a large rectangle on their whiteboard. Then have them draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.

T: "I need 2 students to help me. Raise your hand if you want to help me with this activity."

•Teacher will choose 2 students.

T: "You two are going to demonstrate this activity for us today. Student #1 will flip over a number card and place that many counters in the cup. Student #2 will reach in and take some of the counters out of the cup and place them in the box on the left side of the whiteboard. Student #2 will then write the subtraction sentence that matches the number card and counters. Finally, student #1 will write an addition sentence that matches the number card and counters."

•Student #1 will flip over a number card and place that many counters in the cup.

•Student #2 will reach in and take some of the counters out of the cup and place them in the box on the left side of the whiteboard.

• Student #2 will then write the subtraction sentence that matches the number card and counters.

• Student #1 will write an addition sentence that matches the number card and counters.

T: "Thank you for helping. You two may go back to your seats."

All Students Do:

T: "Now you all know how to do the activity. I am going to separate you into groups of two. When I say your name I want you to come up and get your number cards and cup. Once you have your supplies, then I want you to find a place to sit with your partner. You will have 5 minutes to do this activity with your partner. Make sure you are switching roles, so that you each have an opportunity to pick a number card. When I clap my hands I want your attention on me."

•Teacher will walk around the classroom as the students do the activity and make sure they are on task.

T: (Clap to get their attention.) "You have 10 seconds to put your supplies away and sit at the carpet. 10,9,8,7,6,5,4,3,2,1. Good, you all made it."

Independent Practice: (10 minutes)

T: "Now it is your turn to do it on your own. Each of you will be given this worksheet. Let's do the first problem together."

•Pass out guided practice page 146-147.

T: "4 plus what equals 5?"

S: will say "1".

T: "1 is the other addend. So, you need to write the number 1."

•Students will write the number 1.

T: "Draw the one counter on the right side of the box."

•Students will draw the counter.

T: "What does $5 - 4$ equal?"

S: will say "1".

T: "The difference is 1. So, write the number 1."

•Students will write the number 1.

T: "Now it is your turn to do problems #2, 3, 4, and 5. You will have 3 minutes, when I clap my hands come back to the carpet."

•Students will get to work finishing pages 146-147. As they are working independently the teacher will walk around the room asking students to answer questions and check for any misconceptions.

•Teacher claps hands and students return to the carpet. Do problems 6, 7, and 8 on the problem solving page together.

Closing: (2 minutes)

•Collect the papers and bring the class together on the floor.

T: "Let's look at question #4 on page 147."

T: "4 plus what equals 7?"

S: will say "3".

T: "3 is your other addend. So, you need to write the number 3."

•Students will write the number 3.

T: "What does $7 - 4$ equal?"

S: will say "3".

T: "The difference is 3. So, write the number 3."

•Students will write the number 3.

T: "Great job today!"

Assessment:

Guided Practice